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(54) Title: FUEL CELL USING BIOFILMS AS CATALYST FOR THE CATHODE REACTION AND/OR THE ANODE REACTION

(57) **Abstract:** The present invention relates to a process for the treatment of at least one of the electrodes (cathode and/or anode) of a fuel cell, before the said cell is operated, and before or after the said electrode is placed in the said cell, comprising the step consisting in forming a biofilm on at least part of the surface of the said electrode, by immersing the said electrode in a medium capable of causing the growth of biofilms, the said biofilm being intended to catalyse the reaction at the electrode, and the step consisting simultaneously in subjecting the said electrode to a polarization potential. The invention also relates to a fuel cell comprising at least one electrode covered with a biofilm, obtained before the said electrode is placed in the cell, and to the electrode.